

REMARKS

This paper responds to the Office Action dated March 24, 2004.

5 The Parrish references teach a *bus oriented* system. The bus structure of the Parrish references allows message passing processes. However, in Parrish, all processor elements (which the Examiner equates to Parrish's "functional units") are on a common bus. Parrish, therefore, does not teach a message passing communication *network*. A one-dimensional structure such as a bus is not a network according to a usual definition.

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In a bus-oriented system, only one message may be transmitted at one time. In a communications network, hundreds or thousands of messages may be in transit at the same time. The claimed method is therefore much more complex than a bus-oriented system such as that of Parrish.

15 In the application, the inventor included a bus as a possible topology of the network, see specification page 4, line10 (published paragraph 22).

It is respectfully suggested that the Examiner may not have considered fully certain limitations of the claims. Independent claims 21, 28, 29 and 34 are each limited in that "the local data
20 memories of the at least first and second processor elements [are] not on a common bus". Independent claim 33 is limited in that "the communications managers of the at least first and second processor elements [are] communicatively coupled by means of a message-passing communications network and not solely by a common bus". It is submitted that each of these limitations, by itself, suffices to distinguish fully over Parrish which teaches specifically that all
25 functional units are on a common bus. In the Office Action, the Examiner dismissed newly presented claims 33 and 34 for "the same reasons as" the previously rejected claims, despite these then-new claims containing these very specific limitations which the Examiner did not address at all in the Office Action. Reconsideration is requested.

This point deserves emphasis. So far as independent claims 21, 28, 29, 33 and 34 are concerned, if the Examiner were to maintain the rejection over Parrish, it would be necessary to show where Parrish teaches a system in which the messages are passed between processor elements that are *not coupled by means of a common bus*.

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It is hoped that the Examiner will consider fully these limitations, none of which was addressed by the Examiner in the previous Office Action.

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There are three other independent claims 16, 26 and 27. These claims have been amended to set forth more particularly the non-bus nature of the communications. For example these claims are limited to set forth that the "common bus" is a *respective* common bus for each of the processor elements. In other words if there were a dozen processor elements, *each would have a respective common bus* but there would be no common bus connecting those processor elements to each other. These claims as amended should be allowed for the same reasons as independent claims


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21, 28, 29, 33 and 34.

Reconsideration is requested.

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Respectfully submitted,



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